

Texas Red

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For the professional wrestler, see Mark Calaway
For the food, see chili con carne.

Texas Red (TR) is a red fluorescent dye used in histology for staining cell specimens, a sulfonyl chloride derivate of sulforhodamine 101. It is used for fluorescent-activated cell sorting machines, in fluorescence microscopy applications, and in immunohistochemistry. It can be excited by a dye laser tuned to 595-605 nm, or less efficiently a krypton laser at 567 nm.

Texas Red fluoresces at about 615 nm, and its absorption maximum for the excitation photons is at 589 nm. It is relatively bright, therefore can show even weakly expressed antigens.

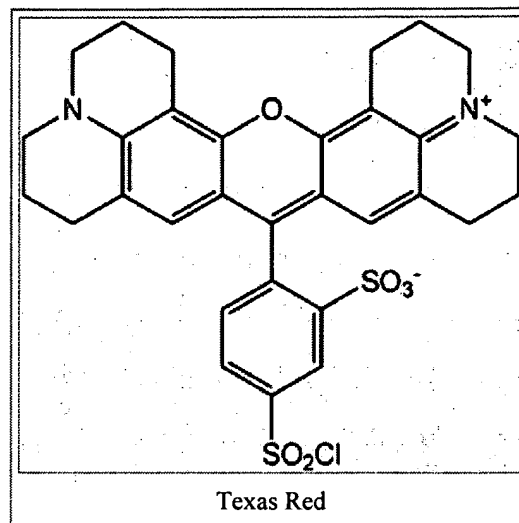
Texas Red is a marker of proteins, with whom it easily form conjugates. A protein with the chromophore attached can then act as a fluorescent labelling agent; an antibody with a fluorescent marker attached will bind to a specific antigen and then show the location of the antigens as shining spots when irradiated. Other molecules can be labeled by Texas Red as well, eg. various toxins.

Texas Red, attached to a strand of DNA or RNA, is a molecular beacon for highlighting specific sequentions of DNA.

Texas Red can be linked with another fluorophore. A tandem conjugate of Texas Red with R-phycoerythrin (**PE-Texas Red**) is often used.

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Categories: Staining dyes | Fluorescent dyes | Rhodamine dyes



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